

REMARKS

Claims 1-44 were previously pending in this patent application. Claims 1-44 stand rejected. Herein, Claim 1, 8, 15, 24, and 35 have been amended. Accordingly, after this Amendment and Response, Claims 1-44 remain pending in this patent application. Applicant respectfully requests further examination and reconsideration in view of the arguments set forth below.

Attached hereto is a marked-up version of the changes made to the patent application by the current amendment. The attached page is captioned **"Version With Markings To Show Changes Made."**

35 U.S.C. Section 103(a) Rejections

In the above referenced Office Action, Claims 1-44 are rejected under 35 U.S.C. Section 103(a) as being obvious over Ice, U.S. Pat. No. 5,884,031 (hereafter Ice) in view of Ishida, U.S. Pat. No. 6,122,259 (hereafter Ishida). Applicant respectfully traverses the rejection of Claims 1-44.

Claim 1 recites:

A method of communicating broadcast information comprising the steps of:

- a) causing a server to communicate a first stream representing digital broadcast information to a first user device wherein said server and said first user device are coupled to the Internet;
- b) causing said server to communicate a second stream representing said broadcast information to a second user device wherein said second user device is coupled to the Internet;

c) causing said first user device to communicate a third stream representing said broadcast information to a third user device wherein said third user device is coupled to the Internet; and
d) receiving and rendering, concurrently, said broadcast information on said first, second and third user devices, and wherein said first, second, and third user devices are configured to receive a stream representing digital broadcast information from said server or a user device ***without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream.*** (emphasis added)

It is respectfully asserted that there is no suggestion, motivation, or teaching found in the cited references (Ice and Ishida) to combine them. Moreover, the combination of Ice and Ishida does not teach, suggest, or motivate all the limitations in Independent Claim 1. Moreover, in the Office action it is admitted that Ice does not teach receiving and rendering, concurrently, the broadcast information on the user devices.

Ice discloses a network structure having each client device (except a top level of client devices connected to the server) connected to two additional client devices for receiving information, so that continuity is maintained if a client device goes down, and up to four client devices for disseminating information. [Ice, Col. 2, Lines 23-33]. Moreover, in Ice, only the first row of client devices receives information from the server. [Ice; Figure 1; Col. 2, Lines 16-22]. After the first row of client devices is formed, subsequent client devices are located in other rows and always receive information from other clients rather than from the server. Id.

Ishida discloses a multipoint video conference system using an ISDN. According to Ishida, each of the multipoint conference devices receives

multicast data, such as audio or video data of a speaker, incoming via one of the ISDN lines, and displays the data on its monitor while sending it to the subsequent terminal under the control of a switch unit. [Ishida, Col. 4, lines 20-24]. As shown in Figure 5 of Ishida, each of the multipoint conference devices sends the data only to an adjacent terminal (either to the left of the transmitting terminal or to the right of the transmitting terminal), thus the video information cannot be simultaneously multicast as stated in the Office Action.

It is respectfully submitted that Independent Claim 1 is patentable over Ice and Ishida. Unlike Ice and Ishida, Independent Claim 1 is directed to a method of communicating broadcast information having the steps of causing a server to communicate a first stream representing broadcast information to a first user device, causing the server to communicate a second stream representing the broadcast information to a second user device, causing the first user device to communicate a third stream representing the broadcast information to a third user device, and receiving and rendering, concurrently, the broadcast information on the first, second, and third user devices, and wherein the first, second, and third user devices are configured to receive a stream representing digital broadcast information from the server or a user device without regard to maintaining a continuous broadcast if the user device discontinues communicating the stream. Thus, each user device receives and renders, concurrently, a portion of the stream of digital broadcast information transmitted by the server. Moreover, in Independent Claim 1, each user device is configured to receive a stream representing broadcast information from either the server or another user device without regard to maintaining a continuous

broadcast if any user device discontinues communicating the stream. In contrast, Ice discloses a network structure where each client is connected to multiple source clients to receive information so that continuity is maintained if a client goes down.

Moreover, in Ishida, each terminal can receive information only from an adjacent terminal unlike in Independent Claim 1. Furthermore, in Ice, only the top-level row client devices receive broadcast information from the server while in Independent Claim 1 a user device at any level (or row) is configured to receive information from either another user device or the server. In sum, the Independent Claim 1 is patentable over Ice and Ishida and is in a condition for allowance.

Dependent Claims 2-7 are dependent on allowable Independent Claim 1, which is allowable over Ice and Ishida. Hence, it is respectfully submitted that Dependent Claims 2-7 are patentable over Ice and Ishida for the reasons discussed above.

With respect to Independent Claim 8, it is respectfully submitted that Independent Claim 8 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 8 recites a method of broadcasting information, wherein the method includes achieving broadcasting of the broadcast information for the first group and a second group of electronic devices by forwarding the broadcast information from the first group of electronic devices to the second group of electronic devices of the network such that the first and

second groups of electronic devices receive and render, concurrently, the broadcast information, and wherein the first and second groups of electronic devices are configured to receive broadcast information from the server or a group of electronic devices without regard to maintaining a continuous broadcast if the group of electronic devices discontinues communicating the broadcast information. Therefore, Independent Claim 8 is allowable over Ice and Ishida for reasons discussed in connection with Independent Claim 1.

Dependent Claims 9-14 are dependent on allowable Independent Claim 8, which is allowable over Ice and Ishida. Hence, it is respectfully submitted that Dependent Claims 9-14 are patentable over Ice and Ishida for the reasons discussed above.

With respect to Independent Claim 15, it is respectfully submitted that Independent Claim 15 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 15 recites a method of communicating broadcast information, wherein the method includes receiving and rendering, concurrently, the broadcast information on the second and third user devices, and wherein the first, second, and third user devices are configured to receive a stream representing digital broadcast information from the server or a user device without regard to maintaining a continuous broadcast if the user device discontinues communicating the stream. Therefore, Independent Claim 15 is allowable over Ice and Ishida for reasons discussed in connection with Independent Claim 1.

Dependent Claims 16-23 are dependent on allowable Independent Claim 15, which is allowable over Ice and Ishida. Hence, it is respectfully submitted that Dependent Claims 16-23 are patentable over Ice and Ishida for the reasons discussed above.

With respect to Independent Claim 24, it is respectfully submitted that Independent Claim 24 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 24 recites a system for communicating broadcast information, wherein the system includes a second and a third user devices also for receiving and rendering, concurrently, the broadcast information, and wherein the first, second, and third user devices are configured to receive a stream representing digital broadcast information from the server or a user device without regard to maintaining a continuous broadcast if the user device discontinues communicating the stream. Therefore, Independent Claim 24 is allowable over Ice and Ishida for reasons discussed in connection with Independent Claim 1.

Dependent Claims 25-34 are dependent on allowable Independent Claim 24, which is allowable over Ice and Ishida. Hence, it is respectfully submitted that Dependent Claims 25-34 are patentable over Ice and Ishida for the reasons discussed above.

With respect to Independent Claim 35, it is respectfully submitted that Independent Claim 35 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 35 recites a system for communicating broadcast

information, wherein the system includes a transmission scheduler for scheduling and maintaining communication links between the server, the first user device, the second user device and the third user device to transmit the broadcast information, and wherein the first, second, and third user devices are configured to receive a stream representing digital broadcast information from the server or a user device without regard to maintaining a continuous broadcast if the user device discontinues communicating the stream. Therefore, Independent Claim 35 is allowable over Ice and Ishida for reasons discussed in connection with Independent Claim 1.

Dependent Claims 36-44 are dependent on allowable Independent Claim 35, which is allowable over Ice and Ishida. Hence, it is respectfully submitted that Dependent Claims 36-44 are patentable over Ice and Ishida for the reasons discussed above.

CONCLUSION

Applicant respectfully submits that the above amendments and remarks overcome all rejections. For at least the above presented reasons, Applicant respectfully submits that all remaining claims (Claims 1-44) are now in condition for allowance and Applicant earnestly solicit such action from the Examiner.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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Version With Markings To Show Changes Made

IN THE CLAIMS

Claims 1, 8, 15, 24, and 35 have been amended as follows:

1. (Three times amended) A method of communicating broadcast information comprising the steps of:
- a) causing a server to communicate a first stream representing digital broadcast information to a first user device wherein said server and said first user device are coupled to the Internet;
 - b) causing said server to communicate a second stream representing said broadcast information to a second user device wherein said second user device is coupled to the Internet;
 - c) causing said first user device to communicate a third stream representing said broadcast information to a third user device wherein said third user device is coupled to the Internet; and
 - d) receiving and rendering, concurrently, said broadcast information on said first, second and third user devices, and wherein said first, second, and third user devices are configured to receive a stream representing digital broadcast information from said server or a user device without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream.

8. (Three times amended) A method of broadcasting information over a network of electronic devices, said method comprising the steps of:

transmitting broadcast information from a server to a first group of electronic devices of said network; and

achieving broadcasting of said broadcast information for said first group and a second group of electronic devices by forwarding said broadcast information from said first group of electronic devices to said second group of electronic devices of said network such that said first and second groups of electronic devices receive and render, concurrently, said broadcast information, and wherein said first and second groups of electronic devices are configured to receive broadcast information from said server or a group of electronic devices without regard to maintaining a continuous broadcast if said group of electronic devices discontinues communicating said broadcast information.

15. (Three times amended) A method of communicating broadcast information comprising the steps of:

a) communicating a first digital stream to a first user device, said first digital stream representing broadcast information, said step a) performed by a server and wherein said server and said first user device are coupled to the Internet;

b) communicating a second digital stream to a second user device, said second digital stream representing said broadcast information, said step b) performed by said server and wherein said second user device is coupled to the Internet;

c) communicating a third digital stream to a third user device, said third digital stream representing said broadcast information, said step c)

performed by said first user device wherein said third user device is coupled to the Internet; and

d) receiving and rendering, concurrently, said broadcast information on said second and third user devices, and wherein said first, second, and third user devices are configured to receive a stream representing digital broadcast information from said server or a user device without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream.

24. (Three times amended) A system for communicating broadcast information comprising:

a) a server configured to communicate a first digital stream to a first user device, said first digital stream representing broadcast information and wherein said server and said first user device are coupled to the Internet;

b) said server also configured to communicate a second digital stream to a second user device, said second digital stream representing said broadcast information and wherein said second user device is coupled to the Internet;

c) said first user device configured to communicate a third digital stream to a third user device, said third digital stream representing said broadcast information and wherein said third user device is coupled to the Internet; and

d) said second and said third user devices also for receiving and rendering, concurrently, said broadcast information, and wherein said first, second, and third user devices are configured to receive a stream representing

digital broadcast information from said server or a user device without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream.

35. (Three times amended) A system for communicating broadcast information comprising:

a) a server configured by a transmission scheduler to communicate a first digital stream to a first user device, said first digital stream representing broadcast information and wherein said server and said first user device are coupled to the Internet;

b) said server also configured by said transmission scheduler to communicate a second digital stream to a second user device, said second digital stream representing said broadcast information and wherein said second user device is coupled to the Internet;

c) said first user device configured by said transmission scheduler to communicate a third digital stream to a third user device, said third digital stream representing said broadcast information and wherein said third user device is coupled to the Internet; and

d) wherein said second and said third user devices are also for receiving and rendering, concurrently, said broadcast information; and

e) wherein said transmission scheduler schedules and maintains communication links between said server, said first user device, said second user device and said third user device to transmit said broadcast information, and wherein said first, second, and third user devices are configured to receive a stream representing digital broadcast information from said server or a user

device without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream.